## AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0011] with the following amended paragraph:

In engagement of gears or power transmission to a chain with a gear, rolling contact of the gear teeth generates stress. The position at which the stress by rolling contact becomes the maximum (hereinafter referred to as a stress concentration region) does not locate just on the tooth surface or the rolling contact surface (tooth flank to tooth face), but lies on a slight inside of the tooth surface. For this reason, in the sintered gear obtained by compacting and sintering a metal powder, fatigue strength of the teeth against the rolling contact can be improved by densifying the superficial portion at the tooth surface to provide an appropriate thickness of a densified layer that has a lower porosity than the inner portion (core). The sintered gear is generally composed of a sintered body having a porosity (volume ratio) of about ~~85 to 90 %~~ 10 to 15%. According to the present invention, densification processing is performed so that the porosity is decreased to 10 % or less and the densified layer is formed with a thickness (or a depth of the boundary surface between the densified layer and the core of the gear from the surface) of 300 to 1,000 microns. With the porosity more than 10 %, sufficient fatigue strength is not possibly obtained. In other words, according to the present invention, the densified layer is defined as meaning the region where the porosity is reduced to 10 % or less. In the densified layer, the porosity tends to increase in accordance with the positioning from the surface to the interior, and the porosity of the densified layer is thus represented by an average value of those from the superficial side to the interior side. If the thickness of the densified layer is less than 300 microns, the stress concentration region is located deeper than the densified layer, and the fatigue strength is therefore not possibly improved. On the other hand, if the thickness exceeds 1,000 microns, it is meaningless since further effect is not possibly obtained any more.

Please replace paragraph [0022] with the following amended paragraph:

FIGs. 3(a) and 3(b) are cross-sectional views showing the case where the gear of the same tooth profile 32 is manufactured by form rolling of a tooth material M' of a different tooth profile 31'. FIG. 3(a) shows the tooth profile 31' of the tooth material M' before form rolling and FIG. 3(b) shows a gear 1b after form rolling. The difference between the tooth profile 32 after form rolling and the tooth profile 31' before form rolling as shown in FIG. 3(a) means a form rolling allowance. At the part where the thickness of the form rolling allowance changes steeply, the thickness of a densified layer 11b steeply changes also in the gear 1b after form rolling from ~~22b~~ 21b to 22b, and a level difference is made in the boundary surface 12b at a junction B between the densified layer 21b of the tooth surface and the densified layer 22b of the bottom land. The stress applied on the densified layer at the time of rolling contact concentrates to the level difference portion of the junction B, and the boundary surface between the level difference portion and its inner portion is likely to be damaged. Moreover, when the vibration generating on the tooth surface by rolling contact propagates through the densified layer 11b, the vibration reflects on the boundary surface 12b at the level difference portion of the junction B and the ratio of the vibration propagating up to the densified layer of the bottom land is reduced due to a sudden narrowing in the vicinity of the level difference. By interference of the reflective vibratory wave, vibratory wave energy concentrates into the vicinity of the level difference.